

ISPs | TELCOS | BROADBAND INTERNET ACCESS MANAGEMENT SOLUTION



24online Overview

24online has Designed a Multi-Tenant Solution which is deployed at the Centralized NOC of the Internet Service Providers. With Built in AAA and Access Gateway Functionalities, 24online Also Enables the features to Support Multiple Networks (Hotels, Hotspots, Universities, Airports etc.) on the same Platform.

There can be Multiple Users in Different Networks, but 24online is Smart Enough to Identify the Network, User & Usage details of the User and Accordingly Authenticate or Perform Ac counting of the Users. With the Help of this Features, ISPs can Offer More than Just Bandw idth & On-board Existing Customer Base with New Offerings. It Opens a Completely New Segement for the ISPs to Tap and Generate More Revenue.

Key Benefits

Innovative Business Models

With the Solution Partnership with 24online, Service Provider can Offer Value Added Sevices to the Customer on Top of Vanilla Internet Facilities.

Increase Business Reach & Enhance Customer Experience

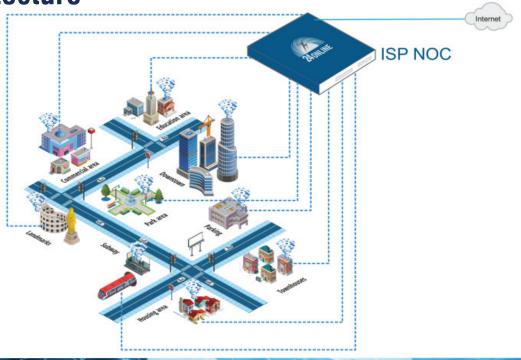
ISPs has Enhanced their Business Reach Among the Enterpise, Hospitality and Hotspot Customers with the Unique Offerings. The Innovate Business Model Also Enhance the Experience of Property Owners as the Entire Management of the Services & Components Ensured by the Service Provider.

Network Competency & Quality of Service

Integrating with the Right Solutions & Products in the Market Like 24online, Service Provider Get the Best in Class Features, Funtionality and Support Round the Clock. If there are any Customization or Additional Features Required for large Scale Deployment then the Open Architecture of the Solution is Capable of Supporting it.

Additional Revenue Generation Platform

Network Architecture



Features

Access Management

Inbuilt RADIUS server

- 802. 16d & 802, 16e Compatible
- PAP/CHAP/EAP-TTLS Support
- · Offers Inbuilt Database
- Supports Oracle Database

Authentication

- Login Through Web Based PPPOE, Leased Line(Auto Login)
- AD / LDAP Authentication
- Voucher(Coupon) Based Authentication
- Corporate Based Authentication
- Device Based on Username & Password
- Mac Based Auto Login Interoperability

 Social Media Basd Login
- · SMS OTP Based Login

Authorization

- Based on MAC and IP address
- Re-Authorization Functionality

Accounting

• On Hours, Days, Data Transfer

Bandwidth Management

- Tiered Bandwidth Management
- Committed and Burstable Bandwidth
- Individual and Shared Bandwidth Quota
- Bandwidth Scheduling & Fair Usage Policy
- Priority Based Bandwidth & Connection
- Bandwidth Capping Using Firewall Rules

Subscriber Management

- Complete User Life Cycle Management
- Account ID Based User Credentials
- Create | Activate | Suspend | Renew Archive Users
- User Management Based Reports
- · User My Account
- User Account Wallet

Package Management

- Prepaid & Postpaid Packages
- Create Hourly and Day Based Plans
- Registration & Renewal & Topup Packages
- Advance Renewal System (ARS)
- Auto Renewal System
- Advance Postpaid, Anniversary Billing, Advance Postpaid Including Anniversary

Internet Billing

- Data Billing
- Currency Converter Facility
- Peak & Off-peak Billing
- · Pulse Based Rating
- Pre-paid & Post-paid Billing
- Customizable Multi-service Invoice Template
- · Tax, Ancillary and Discount Facility
- Allow Billing Grace Periods
- Change Overwriting on Postpaid Billing
- Discount Facility on Both Package Level & User Level

Franchise Management

- Create Multiple Franchises in Network
- Create Single or Multiple Franchise Operators
- Franchise Based: Package | Vouchers | Invoice | MIS Reports
- · Franchise Based Payment Tracking

Coupon Management*

- Branding & Customizable Coupon
- · Create Packaging Zone wise Coupons

Captive Portal Capabilities

- Create Customizable Login Pages HTTP Fnabled
- Device Based Login Pages Mobile/Laptop
- BYOD Support
- User Self Registration
- Promotions and Branding Options
- Video AD Scheduling**
- SSL Based Secured Captive portal
- SSID(DHCP Option 82) Based Captive
- Portal
- · QR based authentication
- · Centralized captive portal
- · Time-based captive portal

Multiple Gateway Load Balancing*

- Supports Multiple ISP Links
- Weight Based Round Robin Traffic Balancing
- High Connectivity Even During Peak Hours
- Immediate Auto-Failover Detection
- Intelligently Redirect Traffic to Active Gateways

System Management

- IP Pool Management
- Login Once
- Syslog Configuration
- DHCP, DNS & PPoE Client & Server
- SmartNAT*
- SNAT Management*
- Diagnostic Tools
- Console & Secured Access (SSH)
- Demographic Field Option
- Basic Firewall System
- Swift User Migration Facility
- Data Backup and Restore
- Factory Reset
- Network Management Options
- Network Packet Capture Option for Admin
- Deployment Modes Access Gateway | AAA | Standalone

Administration

- Role Based Multiple Level Administration
- Console & Admin GUI (ACL)
- Change Password Options
- Multi-funtionality Dashboard Facility
- Ease of Admin Interface
- Quick Configuration Options

Reporting

- Admin GUI Usage Log Audit Reports*
- NetKapture* | Weblogger'
- Reports in CSV/Printable/Graphical/PDF
- MIS & BI Reports
- · Realtime Pin Reports
- HTTP/HTTPS Usag Log
- · Diagnostic and System Health Check Tools

Third Party Integrations*

- **CRM** Integrations
- Ticketing System Integration
- API Based Integration
- Syslog Integration

Payment Gateway*

- Integrated with Major Secured Payment Gateways
- Facilities Online Payment Receivables Flexible to Integrate with Any Payment Gateway
- Integrated with 24online Payment Tracking

Video Ad on Captive portal

- Video-Ad Scheduling for HTTP Traffic while
- Video-Ad at the Time of Login/Logout
- All Video type File Supported

Upto 100k + Concurrency in RADIUS & Upto 10GBPS Throughput in NAS

Attractive & User Friendly Admin Interface

- Rich Look & Feel of Admin GUI
- Multi-lingual GUI Option
- Frequently Used Options
- Demographic Field Option
- Comprehensive Dashboard Format

• Easy Control & Configuration Options High Availability*

- Offers High Availability Active-Passive Mode
- Detect Failure & Redirect Traffic to Secondary
- Avoids Data Loss and Downtime

Alert Management

Email Based Alerts

- Event Based Customizable Email Templates
- Schedule Alerts for Renewal/Package Expiry
- Alert Users on Bandwidth Switch Over
- Dunning(Configuration DynamicTemplate & Forward Various Level of Alert messages over Mail)

SMS Based Alerts*

- Click-n-configure SMS Gateway
- Integrated with 20+ SMS Gateways
- Manage, Try and Create Facility
- Facilitates Different Message Templates Send Message at Different Events-Check-
- in and Check-out Offers complete Log of SMS Sent
- **SMPP Support** WhatsApp notification

Pop-up Window for Live Users

- · Alert Users In-case of Login/Logout/package
- **Expiry Date** Pop-up Live Message for Network or Technical Problems

- Web Filtering**
- Web Categories : Default (37+)
- Block Domains and Ports
- Protocols Supported: HTTP, HTTPS Block Malware, Adult Sites
- Custom Denied Message Per Web Category

Safe Search Enforcement for Bing

- CRM
- Profile Management
- Sales Management
- Customer Verification Collection Management
- Trouble Ticketing Lead Management
- Field Management CRM Dashboard

*Add-on Modules **New Features



24online CRM Overview

CRM is a Basic Need of All Organizations for Customer Details and Work Flow Management. With the Increasing Demand in the Market for CRM and Trouble Ticketing Features, 24online is Powered with 24online CRM and 24online Trouble Ticketing Solutions. The CRM Features of 24online are Integrated with 24online SMS Solution Which Enables Customers to Enhance Business Operations and Performance Effectively Designed and Developed for ISPs, Considering the Business Requirements and Processes.

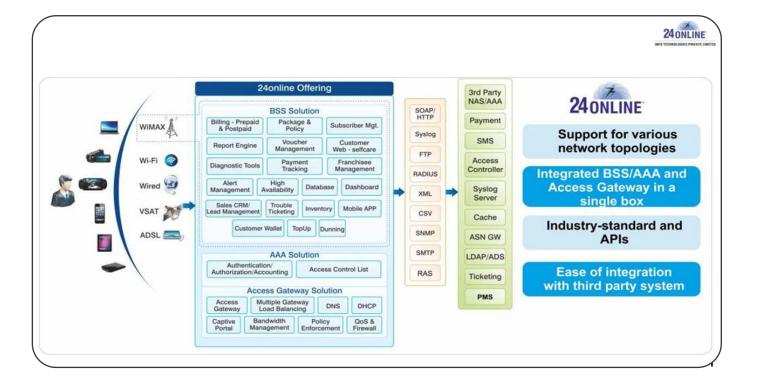
In the Multi-vendor Environment, 24online tends to offer a Comprehensive ISP Solution Which includes Service Management System (SMS) and CRM Solutions on the Same Platform. This is to Reduce Time, Effort, Cost Stipulating Customer Requirement with a Bundle of Tailored Features.

- Lead Generation to Service Installation
- Customer Management to Business Workflow
- Ticket Generation for Incendent Reporting and New Request
- Comprehensive Reporting for Business Analysis

Solution Architecture

*Addon Modules

**New Features



Features

Profile Management**

- Create User Management
- Assign Access control
- Edit/Delete Manage Users
- Customer Acquisition Form (CAF) Support

Sales Management**

- · Lead Status Details
- Target Potential Customers
- Focused Sales Approach
- Oppertunity Reports

Customer Verification & Collection Management**

- Design, Implement & Evalute Bussiness Workflow
- Verify Customer Documents & Payment
- · Payment Collection Management
- Track Due & Advance Payment

Trouble Ticketing

- Track, Detect, Report & Resolve Issue
- · Associated with Customer Account
- Generate Ticket Via E-mail, Call & Online Form
- Allocate, Escalate, and Close Ticket from TT
- Unique Ticket ID Generated to Track Tickets
- Different Types of Issue Registered Reports
- · Periodical Reports of Issue Registered

■ Lead Management**

- Build Customer Contact Information
- Churn-out Sales Ready Contacts
- Align & Allocate Leads
- Maintain Uniformity of Customer Information
- Lead Status Reports

CRM Dashboard**

- Interactive Dashboard with Frequently Used Menus
- Real-time Control Panel
- Add/Remove Widgets as Needed
- View Graphsand Reports from Control Panel

Field Management**

- Capture Customer Orders
- Check Feasibility
- Edit or update Customer Order Details
- Add or Access Customer Documents
- Customer Account Bound with Sales Excuitives
- Unique Order ID for Tracking
- Complete Reporting of Orders

Inventory Management

- Advance Product Categorization
- Stock Tracking and Alert
- Multi Location Inventory
- · Product Issue, Issue Return Management
- · Purchase Order & Return
- Receipt & Receipt Return
- Product Transfer Between Locations
- Supplier & Customer Management
- Invoice Generation & Management
- Report Generation
- Role Based Access Control

Finance Module

- Finance Adjust Report
- Finance Payment Report
- · Finance Unpaid Invoice Report
- Finance Billing Report
- Account Statement Report
- Security Deposit Report
- User Status HistoryFinance Aging Report

24ONLINE User & Field Force Mobile APP



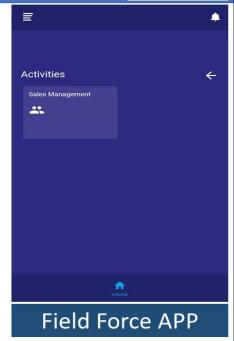


User Mobile App

- Users can login through app to access Wi-Fi
- View payment history, password and usage details
- Contact ISP support team and generate tickets for queries
- Modify, renew, and purchase internet package
- Access My Account through mobile app

Field Force App

- Capture Customer Orders
- Check feasibility
- Edit or Update customer order details
- Add or access customer documents
- Customer account bound with sales executives
- Unique order ID for tracking
- Complete reporting of orders



Major Multi-tenant Features

- Subscriber Management System (SMS) & Hospitality Internet Access(HIA) in a Single Appliance
- Manage Multiple Property Management System (PMS) from Centrally for Multi Location Property
- AD/LDAP Integration for Different Tenant Separate Interface / Portal
- Individual Customize Captive Portal for Tenant
- Individual Customize SMS / Email Alert for Tenant
- Individual Report for Different Tenant
- Individual User Management for Different Tenant

SMS Series







SMS 500iX

SMS 1000iX

SMS 1500iX









| Sr. No | Hardware Model | Data Throughput (Standalone-Mbps) | Data Throughput (NAS Mode-Mbps) | Concurrent Users (Standalone-No.) | Concurrent Users (NAS-No.) | Concurrent Users (RADIUS-No.) |
|--------|-------------------|--------------------------------------|------------------------------------|--------------------------------------|-------------------------------|----------------------------------|
| 1 | 500iX | 500-550 | 600-700 | 500-550 | 600-650 | 1000-1100 |
| 2 | 1000iX | 900-1200 | 1500 | 1000-1200 | 1500 | 3000 |
| 3 | 1500iX | 1500-2000 | 2000-2500 | 1500-2000 | 1800-2200 | 8000 |
| 4 | 2500iX | 3500-4000 | 4000-4500 | 2500-3000 | 3000-3500 | 15000 |
| 5 | 5000iX | 5000-5500 | 6000-6500 | 5000-5500 | 5500-6000 | 30000 |
| 6 | 10000iX | 6000 | 7000 | 10000-11000 | 11000-12000 | 45000-50000 |
| 7 | 10000iX Pro | 10000 | 12000 | 30000 | 35000 | 70000 |



3rd Party Integration

24online RADIUS is well integrated with major 3rd party BRAS/ BNG/DPI/Access Gateway as well as 3rd party WIFI Access Point/Wireless controller.

BRAS/ BNG/DPI Access Gateway















WI-FI Access Point / Wireless Controller















SMS Gateway Integrations











Data

Analytics



Payment Gateway Integrations











QOS

Lawful

Interception







Application **Triple Play** Wise **Fighter Billing**



SDWAN

WI-FI SMP LTE Billing

Diameter

Stack

Clientele

Global ISPs & Telcos





























































































About 24 online

24online is a Leading Internet Access Management and Network Management Solution that Offers Wide Range of Internet Access Control and Management Solutions that Enables ISPs, Hotels, Hotspots, Airports, Educational Institutes, smart Cities etc. To simplify their Internet Network. 24online Addresses the Challenges of customer Acquisition, Secured Service Provisioning and Internet Billing, Monetization via Internet Services and Revenue Management. The Solution has Vast Experiencein Catering to Varied Network Like Wired, Wi-Fi, Cloud, VAST and LTE. with More than a Decade of Experience, We Offer the World Class Solutions in the Most Cost-effective Way.



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